

REMARKS

This Amendment is in response to the Office Action dated December 1, 2004, in which claims 1-4 and 6-20 were initially rejected and claim 5 was indicated as being allowable if rewritten in independent form. Applicant would like to thank the Examiner for the indicated allowability of claim 5 and respectfully requests reconsideration and allowance of all remaining claims.

I. CLAIM OBJECTIONS

Claim 1 was objected to because of an extra set of parentheses. Accordingly, claim 1 is amended as suggested in the Office Action.

II. CLAIM REJECTIONS UNDER §112

A. **Enablement**

Claims 6, 7 and 9-18 were rejected under §112, as allegedly failing to comply with enablement requirement.

As to claims 6 and 7, these claims were dependent on claim 12 instead of claim 1 due to a typographical error. With this Amendment, claim 6 is amended to depend from claim 1, and claim 7 depends from claim 6. Accordingly, Applicant requests that the rejection under §112, first paragraph, be withdrawn with respect to claims 6 and 7.

With respect to claims 9-18, claim 9 is an independent claim and claims 10-18 depend from claim 9. Original claim 9 is directed to an integrated circuit comprising a phase-locked loop, which is fabricated on the integrated circuit and comprises "a selectable loop filter capacitance and a selectable output frequency range."

The Office Action suggests the specification does not enable a phase-locked loop having the claimed scope. The Office Action states, "for example, it does not enable any and every elements for performing the recited function." Applicant respectfully points out that the elements in original claim 9 are

concrete structural features of the claimed apparatus, not functional elements.

To be enabling, the first paragraph of 35 U.S.C. §112 requires the specification to contain a written description of the invention so as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.

The specification provided with the present application contains detailed schematics illustrating a phase-locked loop (FIG. 1) having a selectable loop filter capacitance and a selectable output frequency range. FIGS. 2-5 illustrate the details (down to the gate and transistor level) of how the selectable loop filter capacitance and selectable output frequency range are achieved. FIGS. 2A-2B show a selectable loop filter capacitance. FIGS. 3A-3B illustrate selectable VCOs, each with a different output frequency range. FIGS. 4-5 illustrate details of elements shown in FIGS. 3A-3C. Each of the elements in these figures is discussed in detail in the corresponding written description.

The specification therefore clearly enables any person skilled in the art to make and use a PLL having a selectable loop filter capacitance and a selectable output frequency range.

The statement in the Office Action that the specification "does not enable any and every elements for performing the recited function" it is confusing, is open to at least several different meanings and does not identify which elements or which "functions" are not enabled. (Emphasis added).

First, if the Office Action intends to suggest that the specification does not enable any element for performing the recited "function" (i.e, not even one element is enabled), this statement is clearly inaccurate since the specification includes detailed schematics as to how to make and build a PLL having a

selectable loop filter capacitance and a selectable output frequency range.

Second, if the Office Action intends to suggest that the specification does not enable all the elements for performing the recited "function" (i.e., not all elements are enabled), this suggestion would also be inaccurate since the specification discloses a complete PLL having each and every element recited in claim 9.

Third, if the Office Action intends to suggest that the specification does not enable every embodiment in the world that would satisfy the structural elements of claim 9, this statement would reflect a misinterpretation of §112, first paragraph. There is no requirement that, for a patent claim to be enabled, it must enable all embodiments of the invention. On the contrary, the CCPA and Federal Circuit have both recognized that a claim need not enable all embodiments of the invention. In re Vickers, 61 USPQ 122, 127 (C.C.P.A. 1944); Spectra-Physics, Inc. v. Coherent, Inc., 3 USPQ2d 1737, 1743 (Fed. Cir.), *cert. denied*, 484 U.S. 954 (1987).

In Spectra-Physics, the Federal Circuit stated, "If an invention pertains to an art where the results are predictable, e.g., mechanical as opposed to chemical arts, a broad claim can be enabled by disclosure of a single embodiment . . . and is not invalid for lack of enablement simply because it reads on another embodiment of the invention which is inadequately disclosed." Id.

Under these criteria, claims 9-18 are fully enabled by the present specification.

The Federal Circuit has also stated:

"[A] specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented *must*

be taken as in compliance with the enabling requirement of the first paragraph of §112 *unless* there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support". . . . "[A]ny party making the assertion that a U.S. patent specification or claims fails, for one reason or another, to comply with §112 bears the burden of persuasion in showing said lack of compliance." *Fiers v. Sugano*, 25 USPQ2d 1601, 1607 (Fed. Cir. 1993) (quoting *In re Marzocchi*, 223, 169 USPQ 367, 369 (C.C.P.A. 1971)).

The Office Action has not suggested there is any reason to doubt the objective truth of statements contained in the specification, which must be relied on for enabling support.

The PTO has the burden of giving reasons, supported by the record as a whole, why the specification is not enabling. *In re Angstad*, 190 USPQ 214, 219 (C.C.P.A. 1976) (citing *In re Armbruster*, 512, 185 USPQ 152 (C.C.P.A. 1975)).

For a rejection under the first paragraph of §112, the Examiner must therefore provide evidence from the application supporting each of the following elements:

1. a rational basis as to
 - a. why the disclosure does not teach or
 - b. why to doubt the objective truth of the statements in the disclosure that purport to teach
2. the manner and process of making and using the invention
3. that corresponds in scope to the claimed invention
4. to one of ordinary skill in the pertinent technology,
5. without undue experimentation, and
6. dealing with subject matter that would not already be known to the skilled person as of the filing date of the application.

Since the Office Action provides only a conclusionary statement without providing any evidence from the application supporting each of the above-elements, the Office Action does not present a prima facie case of non-enablement.

For the above-reasons, Applicant respectfully requests that the rejection of claims 9-18 under §112, first paragraph, be withdrawn.

B. §112, Second Paragraph

Claims 6, 7, 9-18 and 20 were rejected under §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter in which the Applicant regards as the invention. Applicant assumes claims 6 and 7 were included in this rejection due to the erroneous dependency on claim 12. As stated above, this dependency has been corrected.

With respect to claims 9-18, the Office Action suggests that these claims are incomplete for omitting essential elements including: the phase-frequency detector, the charge pump, the voltage controlled oscillator, and the control circuit. The Office Action states in order for the phase-locked loop (10 in instant FIG. 1) to generate a selectable output frequency range and operate as a phase-locked loop, those omitted elements need to be included in the claims.

As to dependent claims 10-18, it is unclear why these claims are included in the rejection since these claims recite further details as to the allegedly missing elements listed in the Office Action.

With respect to original independent claim 9, this claim has not omitted essential elements. Claim 9 is directed to an integrated circuit comprising "a phase-locked loop". The phase-locked loop is a positively recited structural element of

the claim. By definition, the recited phase-locked loop is a complete and operable element of the claim.

There is no requirement that a claim recite all possible sub-elements of each positively-recited element of the claim. If the element is a phase-locked loop, by definition, it must include elements to enable it to operate as a phase-locked loop. Otherwise, the device would not be a phase-locked loop. Since a complete device has been claimed, claim 9 has not omitted any essential elements.

Applicant respectfully requests that the rejection of claim 9 and its dependent claims 10-18 under §112, second paragraph, be withdrawn.

With respect to claim 20, the Office Action suggested that claim 20 was unclear because it could not be determined what is being claimed. Applicant respectfully disagrees, but has amended claim 20 to replace the reference to step "(c)" with specific language from parent claim 19. This Amendment has not altered the scope of claim 2. With this Amendment, Applicant respectfully requests that the rejection of claim 20 under §112, second paragraph, be withdrawn.

III. CLAIM REJECTIONS UNDER §102, §103

Claims 1-4 and 19 were rejected under §102(b) as being anticipated by Nakanishi et al., U.S. Patent No. 6,188,285. Claim 8 was rejected under §103(a) as being unpatentable over Nakanishi et al. in view of Tobise et al., U.S. Patent No. 6,229,399. However, claim 5 (and presumably also claim 15) was indicated as being allowable if re-written in independent form.

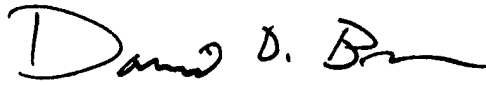
With this amendment, independent claims 1 and 9 are amended to include the elements of claims 5 and 15, respectively.

Claims 1, 9 and their dependent claims are therefore believed to be in condition for allowance. Independent claim 19 is also amended to include voltage level shifter limitations, and is also believed to be in condition for allowance.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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